

Appl. No. 09/887,827
Reply to Examiner's Action dated December 30, 2005

REMARKS/ARGUMENTS

The Applicants have carefully considered this application in connection with the Examiner's Action and respectfully request reconsideration of this application in view of the following remarks.

The Applicants originally submitted Claims 1-10 in the application. Moreover, the Applicants previously withdrew Claims 7-10. Presently, the Applicants have not amended, cancelled nor added any claims. Accordingly, Claims 1-6 and 11 are currently pending in the application.

I. Rejection of Claims 1-6 and 11 under 35 U.S.C. §112

The Examiner has rejected Claims 1-6 and 11 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Namely, the Examiner argues that the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. More specifically, the Examiner asserts that the Applicants have failed to define the phrase "intrinsic tensile stress state" as it is currently used in the claims.

The Applicants respectfully disagree that the phrase "intrinsic tensile stress state" is unclear, or that one skilled in the relevant art would not understand its meaning. The term "intrinsic" as well known, and as defined in Webster's Ninth New Collegiate Dictionary, means belonging to the essential nature or constitution of the thing. Accordingly, the tin or tin alloy claimed is in an intrinsic tensile stress state as its essential nature or constitution. This is, as compared to the cited reference

Appl. No. 09/887,827
Reply to Examiner's Action dated December 30, 2005

that needs an external mechanical apparatus to hold its tin or tin alloy in a tensile stress state. Accordingly, the Applicants request the Examiner to withdraw this rejection.

II. Rejection of Claims 1-6 and 11 under 35 U.S.C. §112

The Examiner has rejected Claims 1-6 and 11 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention. Namely, the Examiner asserts that the phrase "intrinsic tensile stress state" is unclear. For the reasons stated in the section directly above, the phrase "intrinsic tensile stress state" is not unclear. Accordingly, the Applicants request the Examiner to withdraw this rejection.

III. Rejection of Claims 1, 3, and 5 under 35 U.S.C. §102

The Examiner has rejected Claims 1, 3, and 5 under 35 U.S.C. §102(b) as being anticipated by *Superplasticity in Electroplated Composites of Lead and Tin* by Martin, et al. ("Martin"). Independent Claim 1 currently includes the element that the tensile stress state is intrinsic to the tin or tin alloy film. Martin fails to disclose this element.

Martin is directed to the tension testing of a lead or tin layer located over a metal substrate. Martin discloses forming a tin layer over a copper layer, obtaining a small sample of these layers, and subjecting the small sample to a tensile strain from an external source to observe the microstructures of the sample. However, as compared to the tensile stress state that is intrinsic to the tin or tin alloy film, as claimed, the tensile strain of the sample is introduced using an external source

Appl. No. 09/887,827
Reply to Examiner's Action dated December 30, 2005

that is not a part of the coated metal article. Accordingly, Martin fails to disclose this claimed element.

Therefore, Martin does not disclose each and every element of the claimed invention and as such, is not an anticipating reference. Because Claims 3 and 5 are dependent upon Claim 1, Martin also cannot be an anticipating reference for Claims 3 and 5. Accordingly, the Applicants respectfully request the Examiner to withdraw the §102 rejection with respect to these Claims.

IV. Rejection of Claim 2 under 35 U.S.C. §103

The Examiner has rejected Claim 2 under 35 U.S.C. §103(a) as being unpatentable over Martin in view of Japanese Patent No. 51-143533 to Tsujita, *et al.* ("Tsu"). Independent Claim 1 currently includes the element that the tensile stress state is intrinsic to the tin or tin alloy film. As established above, Martin fails to disclose (e.g., teach) this element. Martin further fails to suggest this element. Martin fails to suggest this element because Martin is specifically directed to creating the tensile strain in its tin layer using an external source, such as external machinery, rather than the tin or tin alloy layer having an intrinsic stress state, as claimed.

Tsu further fails to teach or suggest this element. The Examiner is offering Tsu for the sole proposition that the tin alloy has an average grain size in excess of about 1 micrometer. Without even addressing whether the Examiner's proposition is accurate, a teaching or suggestion that the tin alloy has an average grain size in excess of about 1 micrometer is entirely different from a teaching or suggestion that the tin or tin alloy has an inherent stress state, as currently claimed. Accordingly, Tsu also fails to teach or suggest this claimed element.

Appl. No. 09/837,827
Reply to Examiner's Action dated December 30, 2005

Therefore, Martin alone or in combination with Tsu, fails to teach or suggest the invention recited in independent Claim 1 and its dependent claims, when considered as a whole. Accordingly, the combination fails to establish a prima facie case of obviousness with respect to these claims. Claim 2 is therefore not obvious in view of the combination.

In view of the foregoing remarks, the cited references do not support the Examiner's rejection of Claim 2 under 35 U.S.C. §103(a). The Applicants therefore respectfully request the Examiner withdraw the rejection.

V. Rejection of Claims 4 and 6 under 35 U.S.C. §103

The Examiner has rejected Claims 4 and 6 under 35 U.S.C. §103(a) as being unpatentable over Martin in view of U.S. Publication No. 2002/0187364 to Herber, *et al.* ("Herber"). Independent Claim 1 currently includes the element that the tensile stress state is intrinsic to the tin or tin alloy film. As established above, Martin fails to teach or suggest this element.

Herber further fails to teach or suggest this element. The Examiner is offering Herber for the sole proposition of an underlayer of nickel, nickel alloy, cobalt, cobalt alloy, iron or iron alloy having a thickness in the range of 0 to 20 micrometers. Without even addressing whether the Examiner's proposition is accurate, a teaching or suggestion of an underlayer of nickel, nickel alloy, cobalt, cobalt alloy, iron or iron alloy having a thickness in the range of 0 to 20 micrometers is entirely different from a teaching or suggestion that the tin or tin alloy has an inherent stress state, as currently claimed. Accordingly, Herber also fails to teach or suggest this claimed element.

Appl. No. 09/887,827
Reply to Examiner's Action dated December 30, 2005

Therefore, Martin alone or in combination with Herber, fails to teach or suggest the invention recited in independent Claim 1 and its dependent claims, when considered as a whole. Accordingly, the combination fails to establish a prima facie case of obviousness with respect to these claims. Claims 4 and 6 are therefore not obvious in view of the combination.

In view of the foregoing remarks, the cited references do not support the Examiner's rejection of Claims 4 and 6 under 35 U.S.C. §103(a). The Applicants therefore respectfully request the Examiner withdraw the rejection.

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NO. 4027 P. 10

Appl. No. 09/887,827
Reply to Examiner's Action dated December 30, 2005

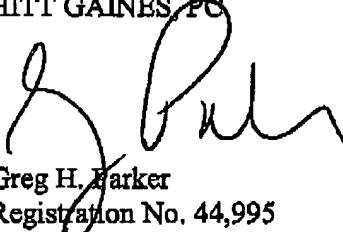
VI. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-6 and 11.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

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Dated: 2-28-06

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